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10/593,236

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EXAMINER

MAESTRI, PATRICK J

ART UNIT

PAPER NUMBER

3633

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

## Application No.

10/593,236

## Applicant(s)

SUEHIRO ET AL.

## Examiner

PATRICK MAESTRI

## Art Unit

3633

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 18 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/5508)
- Paper No(s)/Mail Date 20060918
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Specification***

1. The disclosure is objected to because of the following informalities: Paragraph [0005], line 4 states "connecting part 1 covers" but is labeled in Figure 19 "1A". The title "Summary of the Invention" needs to be corrected. Multiple instances refer to the tensile force, sometimes as "T" and others as "T(KN)". These references need to be uniform throughout the Specification. Paragraph [0022], line 16 refers to "fixings" but it is unclear what "fixings" are. Paragraph [0031] refers to "reinforcing portion 22 of R", but R is not defined. Paragraph [0036], line 8 misspelled "with". Paragraph [0037], line 8 refers to "section A" and "section B" but they are not labeled in Figure 7. Paragraph [0039] also refers to "R" but it is not defined. Paragraph [0048], line 10 refers to "the a" and should either be "the" or "a". Paragraph [0053], line 5 should read "first anchor bolt can".

Appropriate correction is required.

### ***Claim Objections***

2. Claim 17 is objected to because of the following informalities: Line 2 of claim 17 states "is set into the drilled, the" and should read "drilled borehole". Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**4. Claims 1, 2, and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Suehiro (US Patent No 7,222,464)**

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Referring to claim 1: Suehiro (464) teaches a composite anchor comprising: a first anchor bolt installed projecting outside of a concrete frame; and a second anchor bolt which is eccentrically positioned to the axis of said first anchor bolt; and a connecting part for connecting said first and the second anchor bolts, wherein said connecting part is provided with projecting portion which projects in the opposite direction to the first

anchor bolt, thereby reducing the bending moment which is exerted locally on the connecting part due to a load on said first anchor bolt (claim 1).

Referring to claim 2: Suehiro (464) teaches the planar configuration of said connecting part is made to be a polygonal or circular shape, thereby increasing the compressive force transfer area of said projecting portion (claim 4).

Referring to claim 16: The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Suehiro (518) teaches The method of installing a composite anchor bolt comprising: preparing a composite anchor bolt which comprises a first anchor bolt projecting on the outside and a second anchor bolt positioned eccentrically to the first anchor bolt, and a planar connecting part connecting the first and second anchor bolts: removing a cylindrical or polygonal core from the reinforcement covering margin to confirm the position of the reinforcement when reinforcement is encountered in the anchor borehole position, said core corresponding to the shape of said connecting part, and surrounding the borehole, drilling a borehole for said second anchor bolt; and jointly attaching said composite anchor bolt. (claim 1)

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**5. Claims 7, 8, 9, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 59-188892 ("JP 892").**

Referring to claim 7: JP 892 teaches a composite anchor bolt comprising: a first anchor bolt installed projecting outside of the concrete frame (figure 1, item 10); a second anchor bolt which is eccentrically positioned to the axis of said first anchor bolt (figure 1, item 8); and a connecting part for connecting said first and the second anchor bolts (figure 1, item 1), wherein the center of said connecting part and the axis of the first anchor bolt are coaxial (figure 1), a planar configuration of said connecting part is formed in a polygonal or circular shape (figure 1), and said second anchor bolt can be selectively positioned in a certain circumference (figure 2).

Referring to claim 8: JP 892 teaches the planar configuration of said connecting part is made either a circular, triangular, quadrangular, or polygonal configuration to increase the adhesive area of the composite anchor bolt with the concrete (figure 2, item 3).

Referring to claim 9: JP 892 teaches a reinforcing portion is formed at a joining point between said second anchor bolt and said connecting part to compensate for a bending moment which is exerted locally on the joining point (figure 1, item 4).

Referring to claim 13: JP 892 teaches at least one of said first anchor bolt and second anchor bolt is removably attachable to said connecting part (figure 1, item 4 is a threaded hole).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suehiro in view of JP 892.**

Referring to claim 3: Suehiro (464) teaches all the limitations of claim 1 as noted above. Suehiro (464) does not teach connecting part is formed to have top and bottom surfaces of a polygonal or circular shape, and said second anchor bolt is positioned at the center of the connecting part. However, JP 892 teaches a top and bottom surface or a polygonal or circular shape (figure 1, item 1), and a bolt through the center. JP 892 discloses the claimed invention except for bolt in the center is the second anchor bolt. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the center bolt the second anchor bolt, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

It would have been obvious to someone with ordinary skill in the art at the time of the invention to combine the anchor taught by Suehiro (464) with the bracket taught by JP 892 in order to create a concrete anchor with a more distributed load because of a larger surface area.

**8. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suehiro (464) in view of Kubler et al. (US Patent No 6,604,899) ("Kubler").**

Referring to claim 4: Suehiro (464) teaches all the limitations of claim 1 as noted above. Suehiro (464) does not teach the connecting part has an injection hole for the adhesive and an air hole. However, Kubler teaches a bolt with injection and air holes (figure 1).

It would have been obvious to someone with ordinary skill in the art at the time of the invention to combine the bracket taught by Suehiro (464) with the bolt taught by Kubler in order to allow the anchor bolt assembly to be fitted into place before adhesive is applied. This would also allow a tight seal with a reduced risk of air pockets compromising the integrity of the bond between the anchor bolt and the concrete structure.

**9. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suehiro (464).**

Referring to claim 5: Suehiro (464) discloses the claimed invention except for both of said first anchor bolt and said second anchor bolt are formed with the same or different diameters. It would have been obvious matter of design choice to make the first and second bolts the same or different diameters, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237, (CCPA 1955).



Referring to claim 6: Suehiro (464) discloses the claimed invention except for said second anchor bolt has a larger diameter than said first anchor bolt, and formed with a shorter length in the embedded concrete. It would have been obvious matter of design choice to choose a larger second anchor bolt with a shorter length in the concrete, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237, (CCPA 1955).

**10. Claims 10, 1114, 15, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 892.**

Referring to claim 10: JP 892 discloses the claimed invention except for both of said first anchor bolt and said second anchor bolt are formed with the same or different diameters. It would have been obvious matter of design choice to make the first and second bolts the same or different diameters, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237, (CCPA 1955).

Referring to claim 11: JP 892 discloses the claimed invention except for said second anchor bolt has a larger diameter than said first anchor bolt, and formed with a shorter length in the embedded concrete. It would have been obvious matter of design choice to choose a larger second anchor bolt with a shorter length in the concrete, since such a modification would have involved a mere change in the size of a component. A change

in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237, (CCPA 1955).

Referring to claim 14: JP 892 discloses the claimed invention except for the first anchor bolt being at an end and the second anchor bolt being in the middle of the bracket. It would have been obvious to one having ordinary skill in the art at the time the invention was made to switch the positions of the first and second anchor bolts, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

Referring to claim 15: JP 892 teaches all the limitations of claim 14 as noted above. Additionally, JP 892 teaches at least one of the anchor bolts is removably attached (figure 1, item 4).

Referring to claim 17: Suehiro (518) teaches all the limitations of claim 16 as noted above. Additionally, Suehiro (518) teaches placing the second anchor bolt in a drilled hole with adhesive. Suehiro (518) does not teach injecting the adhesive. However, Kubler teaches a bolt with injection holes.

It would have been obvious to someone with ordinary skill in the art at the time of the invention to combine the method taught by Suehiro (518) with the bolt taught by Kubler and injecting the adhesive to ensure there are no air pockets and the area under the anchor bolt is completely filled with adhesive.

Referring to claim 18: Suehiro (518) teaches all the limitations of claim 16 as noted above. Suehiro (518) does not teach a portion of said connecting part is projected

outside from the concrete frame, and an equipment base is placed on said connecting part and attached with said first anchor bolt. However, JP 892 teaches the connecting part protruding from the concrete and an equipment base attached (figure 1).

It would have been obvious to someone with ordinary skill in the art at the time of the invention to combine the method of installing an anchor bolt taught by Suehiro (518) with the characteristic of having an exposed portion attached to equipment base taught by JP 892 in order to easily secure the equipment to the anchor bolt and allow for visual inspection of the anchor bolt with the equipment still attached.

**11. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 892 in view of Kubler.**

Referring to claim 12: JP 892 teaches all the limitations of claim 7 as noted above. JP 892 does not teach said connecting part has an injection hole for the adhesive and an air hole. However, Kubler teaches an injection hole in a bolt (figure 1).

It would have been obvious to someone with ordinary skill in the art at the time of the invention to combine the anchor bolt taught by JP 892 with the injection and air holes taught by Kubler in order to provide an avenue for air to escape, ensuring a reduced chance of comprising the integrity of the bond between the anchor bolt and the concrete structure.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PATRICK MAESTRI whose telephone number is (571)270-7859. The examiner can normally be reached on 9am-4pm Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Chilcot can be reached on 571-272-6777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/P. M./  
Examiner, Art Unit 3633

/Brian E. Glessner/  
Primry Patent Examiner, Art Unit 3633